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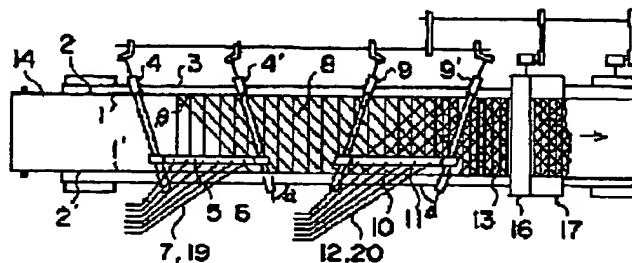
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APPLICANT : POLYMER PROCESSING RES INST;

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TITLE : REINFORCING FIBROUS SUBSTRATE
FOR COMPOSITE MATERIAL



ABSTRACT : PROBLEM TO BE SOLVED: To obtain a reinforcing fibrous substrate for composite materials having a slight difference of strength in directions by bonding and integrating an assembly of warp and weft materials and oblique materials mutually intersecting in opposite directions in a linear or a dotted form with a thermally fusible resin.

SOLUTION: This reinforcing fibrous substrate for composite materials composed of a tetraxial assembled fabric is obtained by respectively using glass rovings as warp materials 14, weft materials 7 and oblique materials 12, feeding the many weft materials 7 and thermoplastic resin fibers 19 composed of a copolymer nylon, etc., through many yarn guides 6 onto a circulating conveyor 3 moving in the warp direction, forming many oblique materials 8 between pin rows 2 and 2' at the left and right ends by the reciprocating motion of a traversing tool 5, further superposing the oblique materials 8, thereby forming an assembly 13 of the weft materials 7 and oblique materials 12 mutually intersecting in opposite directions, further feeding the warp materials 14 so as to nip the assembly 13 from the upper and lower sides, thermocompression bonding the assembly 13 at a position of a hot roller 16 and bonding the assembly 13 in a liner form with the thermoplastic resin fibers 19.

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